

**ABSTRACT:**

To improve the aural sensation of audio signals the use of bandwidth extension devices in audio reproduction systems is known.

Herewith it is possible to add a low-pitched signal to the audio signal comprising lower signal part than the original input signal.

5 The invention provides an improvement of the known devices to overcome artifacts in the reproduced audio signal by delaying the unprocessed signal part to obtain the same delay as the obtained sub-harmonics.

Fig. 1